

Appendix AP. Bird species noted (indicated by an “X”) from historical records versus species detected from May 1999 - May 2001 at Johnstown Flood National Memorial.

Species	Historical Records ^a	May 1999 - May 2001
Alder Flycatcher		X
American Crow	X	X
American Goldfinch	X	X
American Kestrel		X
American Redstart	X	X
American Robin	X	X
American Tree Sparrow		X
Baltimore Oriole	X	X
Barn Swallow	X	X
Barred Owl		X
Bay-breasted Warbler	X	
Belted Kingfisher	X	X
Black-and-white Warbler		X
Black-capped Chickadee	X	X
Blackburnian Warbler	X	X
Blackpoll Warbler	X	X
Black-throated Blue Warbler	X	X
Black-throated Green Warbler	X	X
Blue Jay	X	X
Blue-gray Gnatcatcher	X	X
Blue-headed Vireo		X
Blue-winged Warbler	X	X
Bobolink		X

Appendix AP. Bird species noted (indicated by an “X”) from historical records versus species detected from May 1999 - May 2001 at Johnstown Flood National Memorial (continued).

Species	Historical Records	May 1999 - May 2001
Broad-winged Hawk		X
Brown Creeper		X
Brown Thrasher		X
Brown-headed Cowbird	X	X
Canada Goose		X
Canada Warbler	X	
Cape May Warbler	X	
Carolina Wren		X
Cedar Waxwing	X	X
Chestnut-sided Warbler	X	X
Chimney Swift	X	
Chipping Sparrow	X	X
Common Grackle	X	X
Common Raven	X	
Common Yellowthroat	X	X
Dark-eyed Junco		X
Downy Woodpecker	X	X
Eastern Bluebird	X	X
Eastern Kingbird		X
Eastern Meadowlark	X	X
Eastern Phoebe		X
Eastern Towhee	X	X
Eastern Wood-pewee	X	
European Starling	X	X

Appendix AP. Bird species noted (indicated by an “X”) from historical records versus species detected from May 1999 - May 2001 at Johnstown Flood National Memorial (continued).

Species	Historical Records	May 1999 - May 2001
Field Sparrow	X	X
Golden-crowned Kinglet	X	X
Golden-winged Warbler (<i>Vermivora chrysoptera</i>)	X	
Grasshopper Sparrow		X
Gray Catbird	X	X
Great Crested Flycatcher		X
Great Horned Owl		X
Hairy Woodpecker		X
Henslow’s Sparrow		X
Hooded Warbler	X	
House Finch		X
House Sparrow		X
House Wren	X	X
Indigo Bunting	X	X
Killdeer		X
Magnolia Warbler	X	
Mallard	X	X
Mourning Dove		X
Mourning Warbler	X	
Nashville Warbler	X	
Northern Cardinal	X	X
Northern Flicker	X	X
Northern Parula	X	
Northern Rough-winged Swallow		X

Appendix AP. Bird species noted (indicated by an “X”) from historical records versus species detected from May 1999 - May 2001 at Johnstown Flood National Memorial (continued).

Species	Historical Records	May 1999 - May 2001
Northern Shrike		X
Ovenbird	X	X
Pileated Woodpecker	X	X
Purple Finch		X
Red-bellied Woodpecker		X
Red-breasted Nuthatch		X
Red-eyed Vireo	X	X
Red-shouldered Hawk		X
Red-tailed Hawk	X	X
Red-winged Blackbird	X	X
Rock Dove		X
Rose-breasted Grosbeak	X	X
Ruby-throated Hummingbird		X
Ruffed Grouse		X
Savannah Sparrow	X	X
Scarlet Tanager	X	X
Snow Bunting		X
Song Sparrow	X	X
Summer Tanager (<i>Piranga rubra</i>)	X	
Swamp Sparrow	X	X
Tennessee Warbler	X	
Tree Swallow	X	X
Tufted Titmouse	X	X
Turkey Vulture	X	X

Appendix AP. Bird species noted (indicated by an “X”) from historical records versus species detected from May 1999 - May 2001 at Johnstown Flood National Memorial (continued).

Species	Historical Records	May 1999 - May 2001
Vesper Sparrow		X
White-breasted Nuthatch	X	X
White-eyed Vireo	X	X
White-throated Sparrow	X	X
Wild Turkey		X
Willow Flycatcher	X	X
Wilson’s Warbler	X	
Winter Wren		X
Wood Duck		X
Wood Thrush	X	X
Yellow Warbler	X	X
Yellow-billed Cuckoo	X	X
Yellow-rumped Warbler	X	X
Yellow-throated Vireo		X
Total Number of Species	70	94

^a Historical records were taken from the NPSpecies database (National Park Service 2001).

Appendix AQ. Classifications^a of the relative abundance of bird species identified during spring-migratory (15 April - 25 May), breeding (25 May - 15 July), fall-migratory (25 August - 10 October), and winter seasons (1 December - 15 March), May 1999 - May 2001 at Johnstown Flood National Memorial.

Species	Spring Migration	Breeding	Fall Migration	Winter
Alder Flycatcher	--	O	--	--
American Crow	C	A	C	A
American Goldfinch	A	A	A	U
American Kestrel	--	U	--	--
American Redstart	O	O	--	--
American Robin	C	A	A	U
American Tree Sparrow	R	--	--	A
Baltimore Oriole	U	R	--	--
Barn Swallow	O	O	O	--
Barred Owl	--	--	--	O
Belted Kingfisher	U	R	R	--
Black-and-white Warbler	R	--	--	--
Black-capped Chickadee	U	U	C	C
Blackburnian Warbler	O	--	--	--
Blackpoll Warbler	R	--	--	--
Black-throated Blue Warbler	R	--	R	--
Black-throated Green Warbler	O	O	--	--
Blue Jay	C	U	A	U
Blue-gray Gnatcatcher	R	O	--	--
Blue-headed Vireo	R	--	--	--
Blue-winged Warbler	R	--	--	--
Bobolink	--	O	R	--
Broad-winged Hawk	R	--	--	--

Appendix AQ. Classifications of the relative abundance of bird species identified during spring-migratory (15 April - 25 May), breeding (25 May - 15 July), fall-migratory (25 August - 10 October), and winter seasons (1 December - 15 March), May 1999 - May 2001 at Johnstown Flood National Memorial (continued).

Species	Spring Migration	Breeding	Fall Migration	Winter
Brown Creeper	R	--	--	--
Brown Thrasher	R	--	--	--
Brown-headed Cowbird	C	U	--	--
Canada Goose	U	--	--	A
Carolina Wren	O	R	--	R
Cedar Waxwing	O	C	A	O
Chestnut-sided Warbler	C	U	--	--
Chipping Sparrow	C	O	--	--
Common Grackle	U	U	A	--
Common Yellowthroat	A	A	C	--
Dark-eyed Junco	--	--	--	U
Downy Woodpecker	O	U	O	U
Eastern Bluebird	U	O	U	C
Eastern Kingbird	R	O	--	--
Eastern Meadowlark	O	U	--	--
Eastern Phoebe	O	O	--	--
Eastern Towhee	A	C	U	--
European Starling	U	C	C	U
Field Sparrow	A	A	U	R
Golden-crowned Kinglet	--	--	--	O
Grasshopper Sparrow	R	--	--	--
Gray Catbird	C	A	C	--
Great Crested Flycatcher	R	R	--	--

Appendix AQ. Classifications of the relative abundance of bird species identified during spring-migratory (15 April - 25 May), breeding (25 May - 15 July), fall-migratory (25 August - 10 October), and winter seasons (1 December - 15 March), May 1999 - May 2001 at Johnstown Flood National Memorial (continued).

Species	Spring Migration	Breeding	Fall Migration	Winter
Great Horned Owl	--	--	--	U
Hairy Woodpecker	R	O	R	O
Henslow's Sparrow	R	R	--	--
House Finch	--	--	--	R
House Sparrow	--	--	--	O
House Wren	U	U	--	--
Indigo Bunting	C	A	U	--
Killdeer	O	R	R	R
Mallard	U	--	U	--
Mourning Dove	O	O	O	--
Northern Cardinal	U	U	U	O
Northern Flicker	U	U	O	--
Northern Rough-winged Swallow	U	U	--	--
Northern Shrike	--	--	--	R
Ovenbird	A	A	O	--
Pileated Woodpecker	O	O	R	U
Purple Finch	R	--	--	--
Red-bellied Woodpecker	O	--	--	--
Red-breasted Nuthatch	--	--	R	--
Red-eyed Vireo	A	A	U	--
Red-shouldered Hawk	--	--	U	--
Red-tailed Hawk	C	C	C	R
Red-winged Blackbird	A	A	A	--

Appendix AQ. Classifications of the relative abundance of bird species identified during spring-migratory (15 April - 25 May), breeding (25 May - 15 July), fall-migratory (25 August - 10 October), and winter seasons (1 December - 15 March), May 1999 - May 2001 at Johnstown Flood National Memorial (continued).

Species	Spring Migration	Breeding	Fall Migration	Winter
Rock Dove	R	--	--	R
Rose-breasted Grosbeak	O	O	--	--
Ruby-throated Hummingbird	--	O	O	--
Ruffed Grouse	--	--	R	--
Savannah Sparrow	--	--	R	--
Scarlet Tanager	U	U	--	--
Snow Bunting	--	--	--	O
Song Sparrow	A	A	C	A
Swamp Sparrow	U	C	--	--
Tree Swallow	O	U	C	--
Tufted Titmouse	C	U	U	O
Turkey Vulture	U	U	U	--
Vesper Sparrow	O	O	--	R
White-breasted Nuthatch	O	O	O	U
White-eyed Vireo	R	--	--	--
White-throated Sparrow	R	--	--	O
Wild Turkey	--	--	R	--
Willow Flycatcher	--	C	--	--
Winter Wren	R	--	--	--
Wood Duck	O	--	--	--
Wood Thrush	O	U	--	--
Yellow Warbler	A	A	R	--

Appendix AQ. Classifications of the relative abundance of bird species identified during spring-migratory (15 April - 25 May), breeding (25 May - 15 July), fall-migratory (25 August - 10 October), and winter seasons (1 December - 15 March), May 1999 - May 2001 at Johnstown Flood National Memorial (continued).

Species	Spring Migration	Breeding	Fall Migration	Winter
Yellow-billed Cuckoo	--	R	--	--
Yellow-rumped Warbler	U	--	--	--
Yellow-throated Vireo	R	--	--	--
Total Number of Species	75	59	42	32

^a Classifications refer to the following categories: A, abundant (should be located in large numbers and in more than one habitat); C, common (should be located in fairly large numbers in appropriate habitat); U, uncommon (present in appropriate habitat, but not located in large numbers); O, occasional (present in some parcels of appropriate habitat, but not certain to be detected); R, rare (detected only a few times at most per season); --, none detected during the season.

Appendix AR. Relative abundance (average number/point/survey) of the most common long-distance migrant, short-distance migrant, and permanent-resident species identified from point-count sampling points during spring-migratory seasons (15 April - 25 May, 2000 and 2001) at Johnstown Flood National Memorial.

Resident Status	Species	Average Number/Point/Survey
Long-distance Migrant	Yellow Warbler	1.0
	Ovenbird	0.5
	Red-eyed Vireo	0.5
	Indigo Bunting	0.3
	Chestnut-sided Warbler	0.2
	Northern rough-winged Swallow	0.2
	Baltimore oriole	0.1
	Black-throated Green Warbler	0.1
	Scarlet Tanager	0.1
	American Redstart	0.1
	Barn Swallow	0.1
Short-distance Migrant	Red-winged Blackbird	1.9
	Common Yellowthroat	1.0
	Eastern Towhee	0.5
	Field Sparrow	0.5
	Brown-headed Cowbird	0.4
	Yellow-rumped Warbler	0.3
	Gray Catbird	0.2
	Chipping Sparrow	0.2
	Swamp Sparrow	0.2
	House Wren	0.2

Appendix AR. Relative abundance (average number/point/survey) of the most common long-distance migrant, short-distance migrant, and permanent-resident species identified from point-count sampling points during spring-migratory seasons (15 April - 25 May, 2000 and 2001) at Johnstown Flood National Memorial (continued).

Resident Status	Species	Average Number/Point/Survey
Permanent Resident	Song Sparrow	1.7
	American Goldfinch	1.0
	Blue Jay	0.4
	American Robin	0.4
	Common Grackle	0.2
	Northern Cardinal	0.2
	Tufted Titmouse	0.2
	European Starling	0.2
	American Crow	0.1
	Canada Goose	0.1

Appendix AS. Relative abundance (average number/point/survey) of the most common long-distance migrant, short-distance migrant, and permanent-resident species identified from point-count sampling points during breeding seasons (25 May - 15 July, 1999 and 2000) at Johnstown Flood National Memorial.

Resident Status	Species	Average Number/Point/Survey
Long-distance Migrant	Red-eyed Vireo	0.9
	Indigo Bunting	0.8
	Yellow Warbler	0.7
	Ovenbird	0.6
	Willow Flycatcher	0.3
	Chestnut-sided Warbler	0.2
	Scarlet Tanager	0.1
	American Redstart	0.1
	Black-throated Green Warbler	0.1
	Barn Swallow	0.1
Short-distance Migrant	Red-winged Blackbird	1.2
	Common Yellowthroat	1.0
	Gray Catbird	0.8
	Field Sparrow	0.7
	Swamp Sparrow	0.4
	Eastern Towhee	0.3
	Brown-headed Cowbird	0.3
	Tree Swallow	0.2
	Eastern Phoebe	0.1
	House Wren	0.1

Appendix AS. Relative abundance (average number/point/survey) of the most common long-distance migrant, short-distance migrant, and permanent-resident species identified from point-count sampling points during breeding seasons (25 May - 15 July, 1999 and 2000) at Johnstown Flood National Memorial (continued).

Resident Status	Species	Average Number/Point/Survey
Permanent Resident	Song Sparrow	2.0
	American Goldfinch	0.8
	American Robin	0.4
	European Starling	0.4
	Downy Woodpecker	0.3
	American Crow	0.2
	Northern Cardinal	0.2
	Tufted Titmouse	0.2
	Cedar Waxwing	0.1
	Eastern Meadowlark	0.1

Appendix AT. Relative abundance (average number/point/survey) of the most common long-distance migrant, short-distance migrant, and permanent-resident species identified from point-count sampling points during fall-migratory seasons (25 August - 10 October, 1999 and 2000) at Johnstown Flood National Memorial.

Resident Status	Species	Average Number/Point/Survey
Long-distance Migrant	Indigo Bunting	0.2
	Red-eyed Vireo	0.1
	Ruby-throated Hummingbird	0.1
	Ovenbird	0.1
	Bobolink	< 0.1
Short-distance Migrant	Red-winged Blackbird	0.8
	Common Yellowthroat	0.5
	Gray Catbird	0.4
	Field Sparrow	0.2
	Eastern Towhee	0.1
	Tree Swallow	0.1
	Killdeer	< 0.1
	Savannah Sparrow	< 0.1
Permanent Resident	Common Grackle	3.0
	American Goldfinch	1.1
	Cedar Waxwing	1.0
	American Robin	0.7
	European Starling	0.4
	Black-capped Chickadee	0.4
	Song Sparrow	0.4
	Blue Jay	0.4
	Tufted Titmouse	0.2
	Eastern Bluebird	0.2

Appendix AU. Relative abundance (average number/point/survey) of the most common short-distance migrant and permanent-resident species identified from point-count sampling points during winter seasons (1 December - 15 March, 1999-00 and 2000-01) at Johnstown Flood National Memorial.

Resident Status	Species	Average Number/Point/Survey
Short-distance Migrant	American Tree Sparrow	0.5
	Snow Bunting	0.1
	Golden-crowned Kinglet	0.1
	Vesper Sparrow	< 0.1
	White-throated Sparrow	< 0.1
Permanent Resident	Song Sparrow	0.8
	American Crow	0.6
	Black-capped Chickadee	0.3
	American Robin	0.2
	Eastern Bluebird	0.2
	European Starling	0.1
	American Goldfinch	0.1
	Downy Woodpecker	0.1
	Pileated Woodpecker	0.1
	White-breasted Nuthatch	0.1

Appendix AV. Bird species noted (indicated by an “X”) from historical records versus species detected from May 1999 - May 2001 at Valley Forge National Historical Park.

Species	Historical Records ^a	May 1999 - May 2001
Acadian Flycatcher	X	X
Alder Flycatcher		X
American Bittern (<i>Bontaurus lentiginosus</i>)	X	
American Black Duck	X	X
American Coot	X	X
American Crow	X	X
American Goldfinch	X	X
American Kestrel	X	X
American Pipit	X	
American Redstart	X	X
American Robin	X	X
American Tree Sparrow	X	X
American Wigeon	X	
American Woodcock	X	X
Bald Eagle	X	
Baltimore Oriole	X	X
Bank Swallow	X	
Barn Owl	X	
Barn Swallow	X	X
Barred Owl	X	X
Bay-breasted Warbler	X	X
Belted Kingfisher	X	X

Appendix AV. Bird species noted (indicated by an “X”) from historical records versus species detected from May 1999 - May 2001 at Valley Forge National Historical Park (continued).

Species	Historical Records	May 1999 - May 2001
Black Scoter (<i>Melanitta nigra</i>)	X	
Black Vulture	X	X
Black-and-white Warbler	X	X
Black-billed Cuckoo	X	X
Black-capped Chickadee	X	
Black-crowned Night-heron	X	
Blackburnian Warbler	X	X
Blackpoll Warbler	X	X
Black-throated Blue Warbler	X	X
Black-throated Green Warbler	X	X
Blue Jay	X	X
Blue-gray Gnatcatcher	X	X
Blue Grosbeak	X	X
Blue-headed Vireo	X	X
Blue-winged Teal	X	
Blue-winged Warbler	X	X
Bobolink	X	X
Bonaparte’s Gull (<i>Larus philadelphia</i>)	X	
Broad-winged Hawk	X	X
Brown Creeper	X	X
Brown Thrasher	X	X
Brown-headed Cowbird	X	X
Bufflehead	X	X

Appendix AV. Bird species noted (indicated by an “X”) from historical records versus species detected from May 1999 - May 2001 at Valley Forge National Historical Park (continued).

Species	Historical Records	May 1999 - May 2001
Canada Goose	X	X
Canada Warbler	X	X
Canvasback	X	
Cape May Warbler	X	X
Carolina Chickadee	X	X
Carolina Wren	X	X
Cattle Egret (<i>Bubulcus ibis</i>)	X	
Cedar Waxwing	X	X
Cerulean Warbler	X	X
Chestnut-sided Warbler	X	X
Chimney Swift	X	X
Chipping Sparrow	X	X
Cliff Swallow	X	
Common Goldeneye	X	X
Common Grackle	X	X
Common Loon	X	
Common Merganser	X	X
Common Moorhen (<i>Gallinula chloropus</i>)	X	
Common Nighthawk	X	X
Common Raven		X
Common Redpoll	X	
Common Snipe		X
Common Yellowthroat	X	X

Appendix AV. Bird species noted (indicated by an “X”) from historical records versus species detected from May 1999 - May 2001 at Valley Forge National Historical Park (continued).

Species	Historical Records	May 1999 - May 2001
Connecticut Warbler (<i>Oporornis agilis</i>)	X	
Cooper’s Hawk	X	X
Dark-eyed Junco	X	X
Dicksissel (<i>Spiza americana</i>)	X	
Double-crested Cormorant	X	X
Downy Woodpecker	X	X
Eastern Bluebird	X	X
Eastern Kingbird	X	X
Eastern Meadowlark	X	X
Eastern Phoebe	X	X
Eastern Screech-owl	X	X
Eastern Towhee	X	X
Eastern Wood-pewee	X	X
European Starling	X	X
Evening Grosbeak	X	
Field Sparrow	X	X
Fish Crow	X	X
Fox Sparrow	X	X
Gadwall	X	
Glossy Ibis (<i>Plegadis falcinellus</i>)	X	
Golden Eagle	X	X
Golden-crowned Kinglet	X	X
Golden-winged Warbler	X	

Appendix AV. Bird species noted (indicated by an “X”) from historical records versus species detected from May 1999 - May 2001 at Valley Forge National Historical Park (continued).

Species	Historical Records	May 1999 - May 2001
Grasshopper Sparrow		X
Gray Catbird	X	X
Gray-cheeked Thrush	X	X
Great Black-backed Gull (<i>Larus marinus</i>)	X	
Great Blue Heron	X	X
Great Crested Flycatcher	X	X
Great Egret	X	
Great Horned Owl	X	X
Greater Scaup	X	
Greater White-fronted Goose (<i>Anser albifrons</i>)	X	
Greater Yellowlegs	X	
Green Heron	X	X
Green-winged Teal	X	
Hairy Woodpecker	X	X
Hermit Thrush	X	X
Herring Gull	X	X
Hooded Merganser	X	X
Hooded Warbler	X	X
Horned Grebe	X	
Horned Lark		X
House Finch	X	X
House Sparrow	X	X
House Wren	X	X

Appendix AV. Bird species noted (indicated by an “X”) from historical records versus species detected from May 1999 - May 2001 at Valley Forge National Historical Park (continued).

Species	Historical Records	May 1999 - May 2001
Indigo Bunting	X	X
Kentucky Warbler	X	X
Killdeer	X	X
Laughing Gull	X	
Least Flycatcher	X	X
Least Sandpiper	X	X
Lesser Scaup	X	X
Lesser Yellowlegs	X	X
Lincoln’s Sparrow	X	X
Little Blue Heron	X	
Long-eared Owl		X
Louisiana Waterthrush	X	X
Magnolia Warbler	X	X
Marsh Wren	X	X
Mallard	X	X
Merlin	X	
Mourning Dove	X	X
Mourning Warbler	X	
Mute Swan	X	
Nashville Warbler	X	X
Northern Bobwhite	X	
Northern Cardinal	X	X
Northern Flicker	X	X
Northern Goshawk (<i>Accipiter gentilis</i>)	X	

Appendix AV. Bird species noted (indicated by an “X”) from historical records versus species detected from May 1999 - May 2001 at Valley Forge National Historical Park (continued).

Species	Historical Records	May 1999 - May 2001
Northern Harrier	X	X
Northern Mockingbird	X	X
Northern Parula	X	X
Northern Pintail	X	
Northern Rough-winged Swallow	X	X
Northern Saw-whet Owl		X
Northern Waterthrush	X	X
Oldsquaw	X	
Olive-sided Flycatcher	X	
Orange-crowned Warbler	X	
Orchard Oriole	X	X
Osprey		X
Ovenbird	X	X
Palm Warbler	X	X
Peregrine Falcon (<i>Falco peregrinus</i>)	X	
Pectoral Sandpiper	X	X
Philadelphia Vireo	X	X
Pied-billed Grebe	X	X
Pileated Woodpecker	X	X
Pine Grosbeak (<i>Pinicola enucleator</i>)	X	
Pine Siskin	X	
Pine Warbler	X	X
Prairie Warbler	X	X

Appendix AV. Bird species noted (indicated by an “X”) from historical records versus species detected from May 1999 - May 2001 at Valley Forge National Historical Park (continued).

Species	Historical Records	May 1999 - May 2001
Prothonotary Warbler (<i>Protonotaria citrea</i>)	X	
Purple Finch	X	X
Purple Martin	X	
Red-bellied Woodpecker	X	X
Red-breasted Merganser	X	
Red-breasted Nuthatch	X	X
Red-eyed Vireo	X	X
Redhead	X	
Red-headed Woodpecker	X	X
Red-necked Grebe (<i>Podiceps grisegena</i>)	X	
Red-shouldered Hawk	X	X
Red-tailed Hawk	X	X
Red-winged Blackbird	X	X
Ring-billed Gull	X	X
Ring-necked Duck	X	X
Ring-necked Pheasant	X	X
Rock Dove	X	X
Rose-breasted Grosbeak	X	X
Ruby-crowned Kinglet	X	X
Ruby-throated Hummingbird	X	X
Ruddy Duck	X	
Ruffed Grouse	X	
Rusty Blackbird	X	

Appendix AV. Bird species noted (indicated by an “X”) from historical records versus species detected from May 1999 - May 2001 at Valley Forge National Historical Park (continued).

Species	Historical Records	May 1999 - May 2001
Savannah Sparrow	X	X
Scarlet Tanager	X	X
Semipalmated Plover (<i>Charadrius semipalmatus</i>)	X	
Semipalmated Sandpiper (<i>Calidris pusilla</i>)	X	
Sharp-shinned Hawk	X	X
Snow Goose (<i>Chen caerulescens</i>)	X	
Snowy Egret (<i>Egretta thula</i>)	X	
Solitary Sandpiper	X	X
Song Sparrow	X	X
Spotted Sandpiper	X	X
Swainson’s Thrush	X	X
Swamp Sparrow	X	X
Tennessee Warbler	X	X
Tree Swallow	X	X
Tufted Titmouse	X	X
Tundra Swan		X
Turkey Vulture	X	X
Veery	X	X
Vesper Sparrow		X
Warbling Vireo	X	X
Whip-poor-will (<i>Caprimulgus vociferus</i>)	X	
White-breasted Nuthatch	X	X

Appendix AV. Bird species noted (indicated by an “X”) from historical records versus species detected from May 1999 - May 2001 at Valley Forge National Historical Park (continued).

Species	Historical Records	May 1999 - May 2001
White-crowned Sparrow	X	
White-eyed Vireo	X	X
White-throated Sparrow	X	X
White-winged Scoter (<i>Melanitta fusca</i>)	X	
Wild Turkey	X	
Willow Flycatcher	X	X
Wilson’s Warbler	X	X
Winter Wren	X	X
Wood Duck	X	X
Wood Thrush	X	X
Worm-eating Warbler	X	X
Yellow Warbler	X	X
Yellow-bellied Flycatcher	X	X
Yellow-bellied Sapsucker	X	X
Yellow-billed Cuckoo	X	X
Yellow-breasted Chat	X	
Yellow-crowned Night-heron	X	
Yellow-rumped Warbler	X	X
Yellow-throated Vireo	X	X
Yellow-throated Warbler	X	
Total Number of Species	216	163
^a Historical records were taken from the NPSpecies database (National Park Service 2001).		

Appendix AW. Classifications^a of the relative abundance of bird species identified during spring-migratory (15 April - 25 May), breeding (25 May - 15 July), fall-migratory (25 August - 10 October), and winter seasons (1 December - 15 March), May 1999 - May 2001 at Valley Forge National Historical Park.

Species	Spring Migration	Breeding	Fall Migration	Winter
Acadian Flycatcher	R	O	--	--
Alder Flycatcher	R	--	--	--
American Black Duck	--	--	--	U
American Coot	--	--	--	O
American Crow	A	A	A	A
American Goldfinch	A	C	A	C
American Kestrel	O	U	U	O
American redstart	U	O	R	--
American Robin	A	A	A	A
American Tree Sparrow	--	--	--	O
American Woodcock	--	R	--	--
Baltimore Oriole	C	U	--	--
Barn Swallow	C	C	R	--
Barred Owl	--	--	--	O
Bay-breasted Warbler	R	--	R	--
Belted Kingfisher	O	O	O	O
Black Vulture	U	O	O	O
Black-and-white Warbler	O	R	R	--
Black-billed Cuckoo	R	R	--	--
Blackburnian Warbler	R	--	--	--
Blackpoll Warbler	O	O	R	--
Black-throated Blue Warbler	O	--	O	--
Black-throated Green Warbler	O	--	O	--

Appendix AW. Classifications of the relative abundance of bird species identified during spring-migratory (15 April - 25 May), breeding (25 May - 15 July), fall-migratory (25 August - 10 October), and winter seasons (1 December - 15 March), May 1999 - May 2001 at Valley Forge National Historical Park (continued).

Species	Spring Migration	Breeding	Fall Migration	Winter
Blue Jay	A	A	A	C
Blue-gray Gnatcatcher	O	O	R	--
Blue-headed Vireo	R	--	R	--
Blue-winged Warbler	O	O	--	--
Bobolink	O	O	--	--
Broad-winged Hawk	O	--	O	--
Brown Creeper	R	--	R	O
Brown Thrasher	O	O	R	--
Brown-headed Cowbird	C	U	--	R
Bufflehead	--	--	--	A
Canada Goose	A	A	A	A
Canada Warbler	O	--	R	--
Cape May Warbler	R	--	--	--
Carolina Chickadee	C	C	A	A
Carolina Wren	U	U	U	U
Cedar Waxwing	C	U	U	U
Chestnut-sided Warbler	R	--	--	--
Chimney Swift	U	U	U	--
Chipping Sparrow	U	U	R	--
Common Goldeneye	--	--	--	U
Common Grackle	C	C	C	R
Common Merganser	--	--	--	A
Common Nighthawk	--	--	R	--

Appendix AW. Classifications of the relative abundance of bird species identified during spring-migratory (15 April - 25 May), breeding (25 May - 15 July), fall-migratory (25 August - 10 October), and winter seasons (1 December - 15 March), May 1999 - May 2001 at Valley Forge National Historical Park (continued).

Species	Spring Migration	Breeding	Fall Migration	Winter
Common Raven	R	--	R	R
Common Snipe	R	--	--	--
Common Yellowthroat	U	U	O	--
Cooper's Hawk	O	R	O	R
Dark-eyed Junco	O	--	--	A
Double-crested Cormorant	R	--	R	--
Downy Woodpecker	U	U	U	U
Eastern Bluebird	O	O	O	U
Eastern Kingbird	U	C	--	--
Eastern Meadowlark	U	C	O	U
Eastern Phoebe	O	O	O	R
Eastern Screech-owl	--	--	--	U
Eastern Towhee	U	U	O	--
Eastern Wood-pewee	U	U	O	--
European Starling	A	A	A	A
Field Sparrow	O	O	R	--
Fish Crow	O	--	--	--
Fox Sparrow	--	--	--	R
Golden Eagle	--	--	O	--
Golden-crowned Kinglet	--	--	O	U
Grasshopper Sparrow	R	R	R	--
Gray Catbird	A	A	C	--
Great Blue Heron	O	O	O	O

Appendix AW. Classifications of the relative abundance of bird species identified during spring-migratory (15 April - 25 May), breeding (25 May - 15 July), fall-migratory (25 August - 10 October), and winter seasons (1 December - 15 March), May 1999 - May 2001 at Valley Forge National Historical Park (continued).

Species	Spring Migration	Breeding	Fall Migration	Winter
Great Crested Flycatcher	U	U	R	--
Great Horned Owl	--	R	--	O
Green Heron	R	--	R	--
Hairy Woodpecker	O	O	O	O
Hermit Thrush	R	--	--	--
Herring Gull	--	--	--	U
Hooded Merganser	--	--	--	O
Horned Lark	R	--	--	--
House Finch	U	O	O	U
House Sparrow	R	R	R	O
House Wren	U	U	R	--
Indigo Bunting	U	U	--	--
Kentucky Warbler	R	R	--	--
Killdeer	O	O	--	O
Least Flycatcher	R	--	--	--
Least Sandpiper	R	--	--	--
Lesser Scaup	--	--	--	U
Lesser Yellowlegs	R	--	--	--
Lincoln's Sparrow	--	--	R	--
Long-eared Owl	--	--	--	O
Louisiana Waterthrush	--	R	--	--
Magnolia Warbler	O	--	O	--
Marsh Wren	--	--	R	--

Appendix AW. Classifications of the relative abundance of bird species identified during spring-migratory (15 April - 25 May), breeding (25 May - 15 July), fall-migratory (25 August - 10 October), and winter seasons (1 December - 15 March), May 1999 - May 2001 at Valley Forge National Historical Park (continued).

Species	Spring Migration	Breeding	Fall Migration	Winter
Mallard	U	U	U	A
Mourning Dove	C	C	C	U
Nashville Warbler	R	--	R	--
Northern Cardinal	A	A	C	C
Northern Flicker	C	U	C	O
Northern Harrier	--	R	--	O
Northern Mockingbird	U	U	O	O
Northern Parula	O	O	R	--
Northern Rough-winged Swallow	O	R	--	--
Northern Saw-whet Owl	--	--	--	R
Orchard Oriole	O	U	--	--
Osprey	R	--	--	--
Ovenbird	U	U	R	--
Palm Warbler	R	--	O	--
Pectoral sandpiper	R	--	--	--
Philadelphia Vireo	R	--	R	--
Pied-billed Grebe	--	--	--	O
Pileated Woodpecker	O	R	O	R
Pine Warbler	R	--	R	--
Prairie Warbler	O	R	R	--
Purple Finch	--	R	--	--
Red-bellied Woodpecker	C	C	C	C
Red-breasted Nuthatch	--	--	R	R

Appendix AW. Classifications of the relative abundance of bird species identified during spring-migratory (15 April - 25 May), breeding (25 May - 15 July), fall-migratory (25 August - 10 October), and winter seasons (1 December - 15 March), May 1999 - May 2001 at Valley Forge National Historical Park (continued).

Species	Spring Migration	Breeding	Fall Migration	Winter
Red-eyed Vireo	A	A	O	--
Red-headed Woodpecker	R	R	--	--
Red-shouldered Hawk	O	--	--	R
Red-tailed Hawk	C	C	U	C
Red-winged Blackbird	A	C	--	O
Ring-billed Gull	--	--	--	A
Ring-necked Duck	--	--	--	A
Rock Dove	O	O	O	O
Rose-breasted Grosbeak	O	O	R	--
Ruby-crowned Kinglet	O	--	R	R
Ruby-throated Hummingbird	R	R	R	--
Savannah Sparrow	R	--	R	--
Scarlet Tanager	U	U	R	--
Sharp-shinned Hawk	R	R	R	R
Solitary Sandpiper	R	--	--	--
Song Sparrow	C	C	U	C
Spotted Sandpiper	R	--	R	--
Swainson's Thrush	R	--	R	--
Swamp Sparrow	--	R	R	--
Tennessee Warbler	R	--	R	--
Tree Swallow	U	U	--	--
Tufted Titmouse	C	U	C	C
Tundra Swan	--	--	--	R

Appendix AW. Classifications of the relative abundance of bird species identified during spring-migratory (15 April - 25 May), breeding (25 May - 15 July), fall-migratory (25 August - 10 October), and winter seasons (1 December - 15 March), May 1999 - May 2001 at Valley Forge National Historical Park (continued).

Species	Spring Migration	Breeding	Fall Migration	Winter
Turkey Vulture	A	A	A	A
Veery	R	R	--	--
Vesper Sparrow	--	R	--	--
Warbling Vireo	O	O	--	--
White-breasted Nuthatch	U	O	U	U
White-eyed Vireo	R	R	R	--
White-throated Sparrow	U	--	O	C
Willow Flycatcher	R	R	R	--
Winter Wren	--	--	--	R
Wood Duck	O	O	O	O
Wood Thrush	C	A	O	--
Worm-eating Warbler	R	R	R	--
Yellow Warbler	U	O	R	--
Yellow-bellied Sapsucker	R	--	--	O
Yellow-billed Cuckoo	O	R	R	--
Yellow-rumped Warbler	U	--	O	O
Yellow-throated Vireo	O	O	--	--
Total Number of Species	123	91	95	71

^a Classifications refer to the following categories: A, abundant (should be located in large numbers and in more than one habitat); C, common (should be located in fairly large numbers in appropriate habitat); U, uncommon (present in appropriate habitat, but not located in large numbers); O, occasional (present in some parcels of appropriate habitat, but not certain to be detected); R, rare (detected only a few times at most per season); --, none detected during the season.

Appendix AX. Relative abundance (average number/point/survey) of the most common long-distance migrant, short-distance migrant, and permanent-resident species identified from point-count sampling points in forest and herbaceous cover types during spring-migratory seasons (15 April - 25 May, 2000 and 2001) at Valley Forge National Historical Park.

Resident Status	Forest	Herbaceous
	Species (Average Number/Point/Survey)	Species (Average Number/Point/Survey)
Long-distance Migrant	Red-eyed Vireo (1.5)	Barn Swallow (1.1)
	Wood Thrush (0.5)	Chimney Swift (0.4)
	Ovenbird (0.4)	Bobolink (0.4)
	American Redstart (0.3)	Baltimore Oriole (0.3)
	Eastern Wood-pewee (0.3)	Eastern Kingbird (0.3)
	Scarlet Tanager (0.3)	Blue-winged Warbler (0.2)
	Black-throated Blue Warbler (0.2)	Orchard Oriole (0.2)
	Blackpoll Warbler (0.2)	Red-eyed Vireo (0.1)
	Indigo Bunting (0.1)	Blackpoll Warbler (0.1)
	Black-and-white Warbler (0.1)	Northern Rough-winged Swallow (0.1)
		Yellow Warbler (0.1)
Short-distance Migrant	Brown-headed Cowbird (0.2)	Red-winged Blackbird (1.2)
	Gray Catbird (0.2)	Chipping Sparrow (0.4)
	Common Yellowthroat (0.1)	Common Yellowthroat (0.2)
	Eastern Towhee (0.1)	Brown-headed Cowbird (0.1)
	Blue-gray Gnatcatcher (0.1)	Gray Catbird (0.1)
	White-throated Sparrow (0.1)	Tree Swallow (0.1)
	Yellow-rumped Warbler (0.1)	Field Sparrow (0.1)
	Chipping Sparrow (0.1)	White-throated Sparrow (0.1)
	Dark-eyed Junco (0.1)	Blue-gray Gnatcatcher (0.1)
	Fish Crow (0.1)	Eastern Towhee (0.1)
	House Wren (0.1)	House Wren (0.1)
	Yellow-bellied Sapsucker (0.1)	

Appendix AX. Relative abundance (average number/point/survey) of the most common long-distance migrant, short-distance migrant, and permanent-resident species identified from point-count sampling points in forest and herbaceous cover types during spring-migratory seasons (15 April - 25 May, 2000 and 2001) at Valley Forge National Historical Park (continued).

Resident Status	Forest	Herbaceous
	Species (Average Number/Point/Survey)	Species (Average Number/Point/Survey)
Permanent Resident	Blue Jay (0.9)	European Starling (2.7)
	Cedar Waxwing (0.7)	American Robin (0.9)
	Carolina Chickadee (0.7)	Canada Goose (0.7)
	American Robin (0.7)	Cedar Waxwing (0.5)
	Northern Cardinal (0.6)	Eastern Meadowlark (0.5)
	Red-bellied Woodpecker (0.6)	Common Grackle (0.5)
	Tufted Titmouse (0.5)	American Crow (0.4)
	American Goldfinch (0.4)	American Goldfinch (0.4)
	American Crow (0.4)	Song Sparrow (0.4)
	Northern Flicker (0.2)	Northern Cardinal (0.3)

Appendix AY. Relative abundance (average number/point/survey) of the most common long-distance migrant, short-distance migrant, and permanent-resident species identified from point-count sampling points in forest and herbaceous cover types during breeding seasons (25 May - 15 July, 1999 and 2000) at Valley Forge National Historical Park.

Resident Status	Forest	Herbaceous
	Species (Average Number/Point/Survey)	Species (Average Number/Point/Survey)
Long-distance Migrant	Red-eyed Vireo (1.6)	Barn Swallow (0.8)
	Wood Thrush (0.8)	Eastern Kingbird (0.4)
	Ovenbird (0.4)	Indigo Bunting (0.3)
	Eastern Wood-pewee (0.3)	Chimney Swift (0.2)
	Scarlet Tanager (0.2)	Orchard Oriole (0.2)
	Indigo Bunting (0.2)	Red-eyed Vireo (0.2)
	Kentucky Warbler (0.1)	Baltimore Oriole (0.1)
	Acadian Flycatcher (0.1)	Bobolink (0.1)
	Baltimore Oriole (0.1)	Yellow Warbler (0.1)
	Great Crested Flycatcher (0.1)	Warbling Vireo (0.1)
	Worm-eating Warbler (0.1)	
Short-distance Migrant	Gray Catbird (0.4)	Red-winged Blackbird (0.9)
	Eastern Towhee (0.3)	Tree Swallow (0.4)
	Brown-headed Cowbird (0.2)	Chipping Sparrow (0.2)
	Common Yellowthroat (0.1)	Killdeer (0.2)
	Blue-gray Gnatcatcher (< 0.1)	Gray Catbird (0.1)
	Chipping Sparrow (< 0.1)	Common Yellowthroat (0.1)
		Eastern Towhee (0.1)
		Brown Thrasher (0.1)
		Eastern Phoebe (0.1)
		House Wren (0.1)

Appendix AY. Relative abundance (average number/point/survey) of the most common long-distance migrant, short-distance migrant, and permanent-resident species identified from point-count sampling points in forest and herbaceous cover types during breeding seasons (25 May - 15 July, 1999 and 2000) at Valley Forge National Historical Park (continued).

Resident Status	Forest	Herbaceous
	Species (Average Number/Point/Survey)	Species (Average Number/Point/Survey)
Permanent Resident	Blue Jay (0.7)	European Starling (5.4)
	Northern Cardinal (0.7)	Mourning Dove (1.3)
	Carolina Chickadee (0.5)	Eastern Meadowlark (0.7)
	Cedar Waxwing (0.4)	Canada Goose (0.6)
	Red-bellied Woodpecker (0.4)	American Crow (0.6)
	Hairy Woodpecker (0.3)	Rock Dove (0.5)
	American Robin (0.3)	American Goldfinch (0.5)
	Tufted Titmouse (0.2)	American Robin (0.5)
	American Goldfinch (0.2)	Song Sparrow (0.5)
	Carolina Wren (0.2)	Blue Jay (0.5)

Appendix AZ. Relative abundance (average number/point/survey) of the most common long-distance migrant, short-distance migrant, and permanent-resident species identified from point-count sampling points in forest and herbaceous cover types during fall-migratory seasons (25 August - 10 October, 1999 and 2000) at Valley Forge National Historical Park.

Resident Status	Forest	Herbaceous
	Species (Average Number/Point/Survey)	Species (Average Number/Point/Survey)
Long-distance Migrant	Red-eyed Vireo (0.1)	Chimney Swift (0.2)
	Black-throated Blue Warbler (0.1)	Black-throated Green Warbler (0.1)
	Nashville Warbler (0.1)	American Redstart (< 0.1)
	Scarlet Tanager (0.1)	Black-and-white Warbler (< 0.1)
	Wood Thrush (0.1)	Blackpoll Warbler (< 0.1)
	Black-and-white Warbler (< 0.1)	Canada Warbler (< 0.1)
	Magnolia Warbler (< 0.1)	Magnolia Warbler (< 0.1)
	Ovenbird (< 0.1)	
	Philadelphia Vireo (< 0.1)	
	Ruby-throated Hummingbird (< 0.1)	
	Worm-eating Warbler (< 0.1)	
Short-distance Migrant	Gray Catbird (0.2)	Palm Warbler (0.4)
	Golden-crowned Kinglet (0.1)	Gray Catbird (0.1)
	Eastern Towhee (0.1)	Savannah Sparrow (0.1)
	Ruby-crowned Kinglet (0.1)	Common Yellowthroat (0.1)
	Yellow-rumped Warbler (< 0.1)	Brown Thrasher (< 0.1)
		Eastern Phoebe (< 0.1)
		Grasshopper Sparrow (< 0.1)
		House Wren (< 0.1)
		Lincoln's Sparrow (< 0.1)
		Swamp Sparrow (< 0.1)
		Yellow-rumped Warbler (< 0.1)

Appendix AZ. Relative abundance (average number/point/survey) of the most common long-distance migrant, short-distance migrant, and permanent-resident species identified from point-count sampling points in forest and herbaceous cover types during fall-migratory seasons (25 August - 10 October, 1999 and 2000) at Valley Forge National Historical Park (continued).

Resident Status	Forest	Herbaceous
	Species (Average Number/Point/Survey)	Species (Average Number/Point/Survey)
Permanent Resident	American Robin (3.0)	European Starling (5.2)
	Carolina Chickadee (1.5)	American Goldfinch (1.0)
	Blue Jay (1.0)	Blue Jay (0.9)
	Tufted Titmouse (0.6)	American Crow (0.7)
	Red-bellied Woodpecker (0.5)	Mourning Dove (0.7)
	Northern Cardinal (0.3)	Song Sparrow (0.4)
	Downy Woodpecker (0.3)	Eastern Bluebird (0.3)
	American Goldfinch (0.2)	Northern Flicker (0.3)
	White-breasted Nuthatch (0.2)	Carolina Chickadee (0.2)
	Hairy Woodpecker (0.2)	Eastern Meadowlark (0.2)
	Mourning Dove (0.2)	

Appendix BA. Relative abundance (average number/point/survey) of the most common short-distance migrant and permanent-resident species identified from point-count sampling points in forest and herbaceous cover types during winter seasons (1 December - 15 March, 1999-00 and 2000-01) at Valley Forge National Historical Park.

Resident Status	Forest	Herbaceous
	Species (Average Number/Point/Survey)	Species (Average Number/Point/Survey)
Short-distance Migrant	Golden-crowned Kinglet (0.1)	Dark-eyed Junco (0.6)
	White-throated Sparrow (0.1)	Killdeer (0.2)
		American Tree Sparrow (0.2)
		Northern Harrier (0.1)
		Red-winged Blackbird (0.1)
		White-throated Sparrow (0.1)
Permanent Resident	Carolina Chickadee (0.7)	European Starling (2.3)
	Tufted Titmouse (0.6)	Canada Goose (1.9)
	American Robin (0.5)	Eastern Bluebird (0.7)
	Red-bellied Woodpecker (0.3)	American Crow (0.6)
	Downy Woodpecker (0.2)	Eastern Meadowlark (0.6)
	White-breasted Nuthatch (0.2)	Song Sparrow (0.4)
	Cedar Waxwing (0.2)	Mallard (0.3)
	Carolina Wren (0.2)	House Finch (0.2)
	Song Sparrow (0.2)	American Goldfinch (0.2)
	American Crow (0.1)	Red-tailed Hawk (0.2)
	American Goldfinch (0.1)	

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